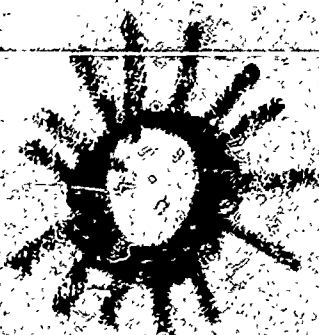


ERIC REPORT RESUME

ERIC ACC. NO. ED 034 092						IS DOCUMENT COPYRIGHTED? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	
CH ACC. NO. AA 000 452	P.A. 64	PUBL. DATE 66	ISSUE RIEAPR 70		ERIC REPRODUCTION RELEASE? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		LEVEL OF AVAILABILITY <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III
AUTHOR Cole, Cynthia; Schroeder, Edith							
TITLE Teacher's Guide to the Houses Box. The MATCH Box Project; Prototype Edition.							
SOURCE CODE MGG14325		INSTITUTION (SOURCE)					
SP. AG. CODE RMQ66004		SPONSORING AGENCY					
EDRS PRICE 0.25;2.15		CONTRACT NO. OEC-4-16-019			GRANT NO.		
REPORT NO.					BUREAU NO. BR-5-0710		
AVAILABILITY							
JOURNAL CITATION							
DESCRIPTIVE NOTE 4lp.; Appendix to Kresse, Frederick H.; Materials and Activities for Teachers and Children: A Project to Develop and Evaluate Multi-Media Kits for Elementary Schools							
DESCRIPTORS Activity Units; *Buildings; Creative Activities; *Empathy; Environment; Eskimos; House Plan; *Housing; *Physical Environment; Social Studies; *Social Studies Units; Units of Study (Subject Fields)							
IDENTIFIERS *Materials and Activities for Teachers and Children; MATCH Boxes							
ABSTRACT The Materials and Activities for Teachers and Children (MATCH Box) project was developed in 1965 to provide for the relatively intensive treatment of a subject over a short period through materials geared to the elementary school level. Each MATCH Box contains materials, equipment and activities that work together to foster the teaching/learning of specific subjects. HOUSES is designed to introduce to first to third grade children the concept of differing physical environments and their significance for the people who live in them. The children study the Netsilik Eskimo winter igloo and summer karmak, and the Western Nigerian river mud house. By the use of houses in this unit it is hoped that the children will understand that the many differences between housing styles demonstrates that where people live influences how they live. The MATCH Box contains films, a series of still photographs, house models, real building materials, picture charts, and books and stories. The teacher is aided by a list of background facts on the Nigerian and the Eskimo environment and the unit can be divided into eight parts, each outlined in this manual. (SH)							



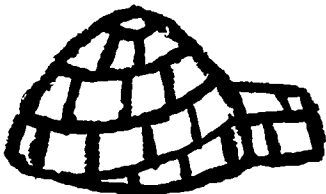
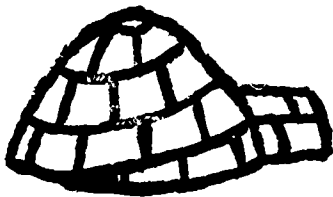
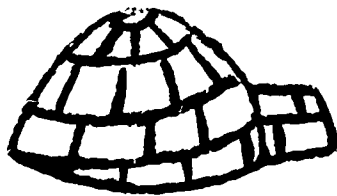
HOUSES

THE MATCH BOX PROJECT

Materials and Activities for Teachers and Children

The material in this publication was prepared under a contract with the United States Office of Education as authorized under Title VII, Part B, of the National Defense Education Act, 1958.

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.



BY

CYNTHIA COLE

EDITH SCHROEDER

TEACHER'S GUIDE TO

THE HOUSES BOX

GRADES ONE - THREE

PROTOTYPE EDITION

c THE MATCH BOX PROJECT



"PERMISSION TO REPRODUCE THIS
COPYRIGHTED MATERIAL HAS BEEN GRANTED
BY The Children's
Museum
TO ERIC AND ORGANIZATIONS OPERATING
UNDER AGREEMENTS WITH THE U.S. OFFICE OF
EDUCATION. FURTHER REPRODUCTION OUTSIDE
THE ERIC SYSTEM REQUIRES PERMISSION OF
THE COPYRIGHT OWNER."

CONTENTS

Introductory
information and a
suggested
arrangement for
using the materials

ABOUT THIS BOX

MAP

OUTLINE OF EIGHT LESSONS
including photograph of materials

The items in the
Box and the various
ways of using them

THE MATERIALS IN THE CLASSROOM

Environment Photographs

Films

House Models

Picture Pool

Real Building Materials

Picture Charts

Books and Stories

Supplementary
information and
further references
for teacher
and pupil

BACKGROUND INFORMATION

Underlying Concepts of the unit

Essential Information for children

Background Facts about Canadian

Eskimos and Nigerians

Eskimo Film Notes

Picture Pool Notes

Story of Okolo

References: Books and Films for
children

ACKNOWLEDGEMENTS

ABOUT THE MATCH BOX PROJECT

ABOUT THIS BOX

THE MATCH Box on houses is designed to help young children realize that there are reasons why people live in different ways in different parts of the world. This should help them as they continue through the years to meet new facts and situations in which other people do things differently from themselves.

where people live
influences how they
live

Houses have been chosen to explore this idea since shelters of some kind are common to all people. But the many differences between houses show that where people live influences how they live. By comparing an Eskimo igloo to a Nigerian mud and thatch house, the children can see that different physical settings call for very different ways of life and kinds of houses.

"read" houses for
the story they tell

You are not expected to teach your students about Eskimos and Nigerians, or to feel you must brush-up on facts about these two peoples. Instead, the Box materials should carry the burden of helping younger children acquaint themselves with the facts about the two houses while older children can try to discover reasons for the similarities and differences between the houses. All the children should be able to increase their ability to draw conclusions from careful observation when they "read" houses for the story they tell about a people's way of life.

This guide consists chiefly of a description of the contents of the MATCH Box and suggested ways to use these materials. There is no one right way to use them. How you use them, and in what order, is largely up to you and the needs of your class. We have outlined one possible arrangement of eight lessons which you will find further along in the guide.

Even if you use our arrangement of lessons you will still be able to choose among the

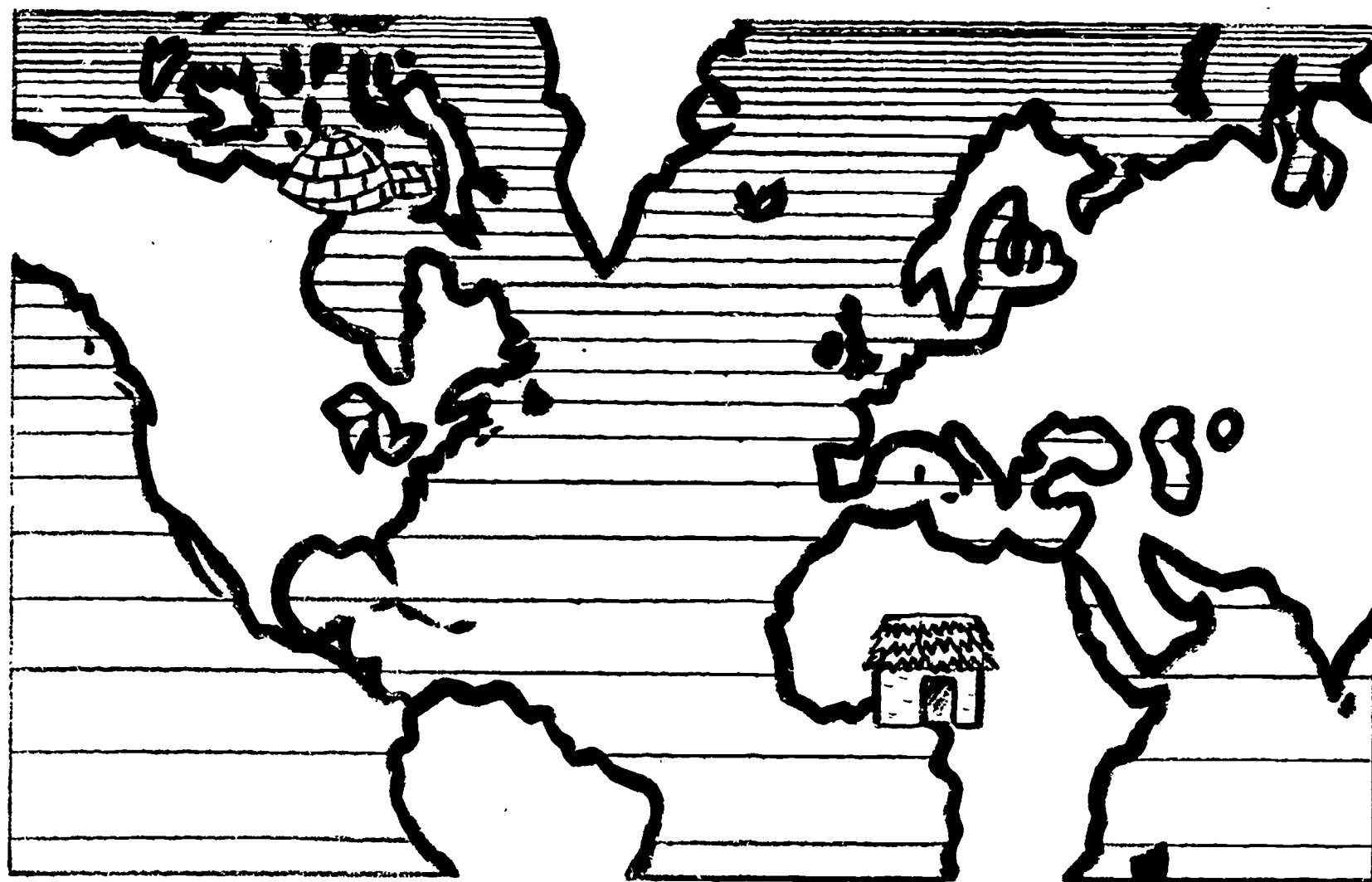
ABOUT THIS BOX 2

ways of using the Picture Pool, for example, or the scale models. You may also wish to plan for more or fewer lessons by combining or dividing the ones we have outlined.

Teachers who have tried the Box have often related the materials to Social Studies topics (Shelters, Families, Around the World) or to other aspects of the curriculum, such as language arts.

MAP

LOCATION OF HOUSES



OUTLINE OF

To use this lesson outline best, you will want to be familiar with the section on Materials following these sample lessons. As you read the lessons, you will find these materials mentioned and underlined. You can then turn to the corresponding headings on the following pages for additional activity suggestions about these items.

1 Using the Eskimo environment photograph, the children pretend to explore the Canadian arctic and decide what materials they could use to build a house. Then they see "Igloo Building," the first of two short films about Eskimos. Through questions and discussion, they consider the relationship between the house, its environment, and the people's way of life. The model of the igloo is introduced (without the karmak roof) for the children to play with during the next two weeks.
Needed: 16 mm. projector.

2 To arouse the children's interest in the second Eskimo film, ask them to figure out what the karmak roof is used for, why it has been included with the model. Watch the film, "Building a Karmak." Then help the children discover why the Eskimo family built a different type of house in the spring time.
Needed: 16 mm. projector.

3 The children handle some of the real building materials available to Eskimos. After several children demonstrate how the reindeer skin is scraped and the sealskin sewn, others take turns at these tasks. Encourage them to think why animal skins must be scraped, and how they are used by the Eskimos. The students who are not scraping or sewing can play with the igloo model or begin working on their picture charts.

4 The children use the Eskimo Picture Pool. By interpreting and grouping these pictures, they begin to see how home life among the Eskimos is similar to and different from their own.

EIGHT LESSONS

Studying the Nigerian environment photograph, the children imagine how a house might be built of the materials available in that country. They see the Malobi film and compare Eskimo and Nigerian houses in discussion afterwards. Help them find reasons why each house is built the way it is. Introduce the Nigerian house model.
Needed: 16 mm projector.

The children use the Nigerian Picture Pool in sorting tasks and make further comparisons between Eskimo and Nigerian ways of living in houses. They may continue working on their picture charts when not busy with other activities.

Using the real building materials available to Nigerians, the children build a section of wall and roof by applying a mud mixture and palm fronds to a bamboo frame. This activity gives the children an experience of the materials and construction methods, and therefore an insight into the Nigerian way of life.
Needed: water.

The children use the Survey Picture Pool in sorting tasks. They discuss and compare these new pictures with the familiar ones of Eskimos and Nigerians.



The only equipment the teacher must provide is a 16 mm film projector and screen. A complete checklist of all the materials will be found inside the lid of the Box.

THE MATERIALS IN THE CLASSROOM

In the Box

- one large color photograph of the Canadian arctic
- one large color photograph of the Nigerian countryside

ENVIRONMENTAL PHOTOGRAPHS

The environmental photographs in the Box are intended to focus the children's interest in the films.

They may also be kept on display as a point of reference for other activities.

■ If you plan to begin the unit with the Eskimo film, "Igloo Building", ask the children to look at the picture of the Canadian arctic, and to imagine themselves as explorers of this region. Emphasize how cold and flat and empty the area might seem. Explain to them that they are surrounded by miles of hard-packed snow, and that they could hunt sometimes for caribou and seals, and occasionally for a polar bear. They need a house for sleeping, cooking, and protection from the cold. How would they build it, and with what materials?

When they have discussed their ideas for a few minutes, show them the film.

■ Just before showing the Malobi film, repeat this same process with the Nigerian environment picture. Help the children figure out what materials could be used for building a house, and what the house might be like. Then indicate that the film shows the way one particular group of people in Nigeria build their houses and live in them.

- Igloo Building (16mm color film, 10 min. silent)
Two Eskimo families of the Netsilik tribe travel across snow and ice to hunt seals. They set up camp and each family builds a snow house, or igloo. (Educational Services, Inc.)
- Building a Karmak (16mm color film, 11 min. silent)
One Eskimo family travels in search of fresh fish in early spring. They build a karmak (the spring and fall igloo with a skin tent roof). (Educational Services, Inc.)
- African Girl - Malobi (16mm, 11 min. sound)
A young girl lives with her family in a village in Nigeria. Members of the community help the family build a new house. (Atlantis Corp.)

FILMS

These films present information about Eskimos and Nigerians, where they live and how they make their homes.

- If possible, preview all three films. This makes it easier to adapt the discussion of the films to the needs of your particular class.
- We suggest that the children's interest in each film be motivated by a preliminary activity. Two such activities with the Environment Photographs are discussed on the previous page. Interest in Building a Karmak can be aroused by asking why the little fur "hood" was included with the Eskimo model; what could it be used for?
- Before each film, ask the children to notice:
 - what kind of land these people live in
 - how the house is built
 - who helps do what work
 - what kinds of tools and possessions they have
- During the silent films about Eskimo house-building we suggest you let the children make comments and ask questions. Some teachers who have tried these materials have found this helps focus attention and clarify points of confusion.

■ Since we want the children to see that Eskimo igloos and Nigerian mud houses serve as adequate homes for the people who make and use them, we suggest that other common and essential aspects of living be discussed, too, such as sleeping arrangements, food gathering and preparing, clothing, work and play, contact with others through trade, etc.

■ After each film, the children will wonder about such things as how deep the snow is, what the favorite food is, or if these people ride bicycles, or celebrate Halloween. Although some of the answers to these questions will be found in the Box, materials, and books as the unit progresses, many of the questions must be satisfied with only speculative answers.

2

■ You may want to list on the board the most relevant questions and comments about the climate, the materials and tools available for house building, how the people sleep, eat, and clothe themselves, how much they are alone or in contact with other people, etc.

■ Although we have outlined each film for a separate day, you may wish to show both Eskimo films together if you have children with a longer attention span. You may also find it helpful to show one or both films again a day or two later. Some teachers have tried this and discovered that they and their students saw and understood more the second time.

- Eskimo Igloo: a white plastic model in which the upper half of the dome roof is removable in blocks so that it can be taken apart to see the construction. There is also a karmak skin roof and supporting pole, a seal, sleeping furs, kettle, drying rack, and an Eskimo doll family (father, mother, and child) all at a scale of one inch to one foot.
- Nigerian House: a model with mud and bamboo walls and a removable palm thatch roof, sleeping mats, pot, stool, and doll family (father, mother, two children) at the same scale.

HOUSE MODELS

These models help the children experience the three-dimensional reality of each house and stimulate them to see similarities and differences between their own homes and these homes.

■ The Eskimo and Nigerian models should be introduced on separate days in connection with the appropriate film. Once introduced, each model can be kept out on a table where small groups of children can examine and play with it in their free time. The children will want to use the models as a source of information when they fill out the picture charts.

■ Let your students set up the house model and doll figures for different seasons or for different kinds of activities; for example, as if the house were being built, as if it were night time or as if the family were preparing food.

■ After both houses have been introduced, mix together in one box all the model dolls and household items. Ask the children to separate these into appropriate Eskimo or Nigerian groups, and ask the reasons for their choices.

■ Have the children draw pictures of things missing from the models. They can also draw pictures of the correct natural background and include animals that might belong there. These can be cut out and placed around the model.

In the Box

- Eskimo Pictures: 38 color photographs, 5" x 7".
- Nigerian Pictures: 35 color photographs, 5" x 7".
- Survey Pictures: 43 color and black-and-white photographs showing other types of houses, both primitive and modern. These pictures are identified with captions on the back.

PICTURE POOL

The children use the picture pool in sorting tasks to isolate similarities and differences in houses and to discover some of the reasons for the variations.

While we have allotted at least three lessons to sorting games with the three groups of pictures, we believe these picture pools can also be used at other times for short periods, or by individual children between other activities during the day. Once the class has tried some of these sorting games together, the children can continue the work in small groups or pairs. This will be more successful since each picture is too small to be seen easily by the whole class.

Eskimo and Nigerian Picture Pool

- Divide the Eskimo (and, later, Nigerian) picture pool among the children. Ask each child to identify his picture and then hang it on the appropriate tape according to a chosen group or category.
- You may wish to let the children determine their own categories as they go along, instead of using the ones we have identified. Let the children know that there may be some pictures which seem to go into several categories, and encourage them to explain their choices.

■ In order to change the classroom pattern or to introduce new categories, you might ask the children to stand up who have pictures of people working, children learning a skill they will need as adults, or perhaps people's behavior which is like or unlike ours.

■ A small group of students can select five or six pictures to fit a particular category (chosen by teacher and whispered to children or chosen by children themselves). The rest of the class, or another small group, is asked to guess what the category is.

2

■ You will find a list of suggested categories after the paragraphs on the Survey Picture Pool. Some specific sorting tasks include:

- finding an appropriate category name for several pictures (like "houses," or "finding and making dinner")
- picking out the picture which does not belong in a group
- separating the Eskimo and Nigerian picture pools from each other, and then further dividing the pictures into sub-categories such as house building, children playing, and so forth
- matching the same type of activity such as dancing, house building, fishing, etc., between cultures
- putting a group of pictures into proper chronological order, such as house building sequences.

■ The pictures can be distributed so that each child can tell a story about his picture, relating it to the previous ones; or the children can choose several pictures showing an event or activity which they can act out or describe in a poem or story.

Survey Picture Pool

■ When the Survey Picture Pool is used at the end of the unit, the children can sort the pictures into various groups, according to hot or cold climate houses, temporary or permanent ones, types of building materials used, the nine from New Guinea in the building sequence, and so forth. Some of the categories suggested on the next page may also be appropriate. The students should be encouraged to look for the reasons why each house is the way it is.

3

■ The pictures of houses in contemporary America can help you lead the children into a discussion of how we use our environment, and also how modern technology lets us use new kinds of materials. Help the children find reasons for the way we make our houses. As new synthetic substances are developed which can be shipped almost anywhere in the world, we no longer need to rely on the materials around us. There may be new reasons for making our homes and apartment buildings the way they are (because we like the appearance, or have the right amount of money or can easily keep them clean, and so forth).

SUGGESTED CATEGORIES

The first six categories have topic pictures drawn on cards with the Picture Pool. These can be used, especially with non-readers, to identify the groups in which pictures can be hung.

BUILDING A HOUSE

FOOD OR EATING

SLEEP OR SLEEPING EQUIPMENT

TRANSPORTATION OF GOODS AND PEOPLE
such as sleds, cars, jars carried on heads,
or babies on backs

WEAPONS AND TOOLS
snow knife, cooking utensils, pottery,
or fishing poles

SIGNS OF HARD WORK
house building, pounding grain

BUILDING MATERIALS IN THE ENVIRONMENT
snow, palm trees, and mud

CLIMATE
evidence of wind, rain, cold, dryness

GATHERING, STORING, SELLING FOOD

THE SAME RESOURCE USED FOR DIFFERENT PURPOSES
snow and animal skins, clay, and reeds

FAMILY LIVING SIMILAR TO OURS
playing, dressing, reading, building play-
house, or swimming, riding bicycles, fishing

PEOPLE DOING THINGS DIFFERENTLY FROM US
making igloo, sleeping on furs, or washing
in river and carrying pots on head

SIGNS OF TRADE WITH OTHER PEOPLES
metal kettle, flour bag, roads, market,
trucks

In the Box

- Eskimo: 1 piece of untanned deerskin,
2 sharp-edged stones.
2 pieces of sealskin, bone
needle and sinew.
- Nigerian: Bamboo, mud mixture, palm leaves,
green twisting ties, plastic
sheeting, all packed together in
a separate container.
Instructions for setting these up
are in the container.

REAL BUILDING MATERIALS

The children work with real materials to see how materials available in the environment can be used to build satisfactory houses.

Eskimo Materials

Let one or two children at a time scrape the deerskin smoothly and evenly for several minutes with the sharp stones. The skin will become softer and whiter after many hours of scraping and pounding (as can be seen on one corner of the skin which has been worked by Museum staff members). Draw out the children's ideas about how the Eskimos use animal skins and why the skins must be scraped clean. (Caribou skins have long been used by Eskimos for tents and karmak roofs, for sleeping furs, and to make parkas and other clothing. But since they are now rare and difficult to obtain, we have substituted a piece of reindeer skin which is quite similar.)

Several children at a time can sew the seal-skins together by pushing the bone needle and sinew through premade holes. These skins have been tanned with the fur left on them and could be used for hats, mittens, small bags, etc. Sealskin is also frequently used for waterproof boots, kayaks, thong, and dog harness.

Nigerian Materials

- Three or four children can work together for several minutes at a time applying the mud mixture to the bamboo frame. While one group is working on the frame, the rest of the class can continue working on the picture charts comparing elements of the different houses.
- When all the children have had a chance to apply the mud, let the completed frame dry where it is sunny and warm. This process should take a day or two. Then the palm fronds are tied onto the roof frame to form a tight thatch. Attaching the wall and roof sections together produces a thin slice of a house.

In the Box

Thirty-five Picture Chart booklets (one for each child) in which the children are asked to draw pictures of parts of their own houses and Eskimo and Nigerian houses.

PICTURE CHARTS

These worksheet suggestions help you assess the children's understanding of the materials in the Box and the concepts supporting them.

The picture charts should be distributed to each child early in your use of the Box. The children will keep their charts for most of the two-week period, gradually adding new pictures as they learn more and more about Eskimo and Nigerian houses. The films, house models, picture pools and reference books should be the main sources of information for these charts. (A sample picture chart page follows.)

Some teachers have asked each child to keep a notebook of all the questions about Eskimos and Nigerians that the materials suggested. In time, the questions became increasingly relevant and the children became more skillful in their search for answers.

Toward the end of the unit, you may want to have the children list the ways Eskimo and Nigerian houses are alike and the ways they are different, and why. Such a list could be made either by each child alone, or by the class and written on the chalkboard.

NAME:

1

	MY HOUSE	ESKIMO IGLOO	NIGERIAN HOUSE
HOUSE SHAPE			
COLOR OF WALLS			
WHAT ARE THE WALLS MADE OF?			

In the Box

- Bound excerpt: Chapter Three of The Story of People by May Edel
- Igloos, Yurts, and Totem Poles edited by Friedrich Boer
- Homes Around the World by Kathryn Jackson
- The First Book of Eskimos by Benjamin Brewster
- Achouna, Boy of the Arctic by Dominique Dubois
- Agossou, Boy of Africa by Dominique Dubois
- Excerpt in Guide: READ ALOUD story from Okolo: Boy of Nigeria by Peter Buckley

BOOKS AND STORIES

These books and excerpts are for reference and browsing.

■ We urge you to look at the first two readings in the above list since they will help you understand the point of view of this Box. You may also wish to read excerpts to your class or let your better readers thumb through them.

■ While the next four books have been included in the Box specifically for the children to look at, we expect you, too, will find useful information in them. These should be left out so the children can browse through them in their free time.

■ When the children are preparing to build with the real mud and bamboo, you may want to read aloud the story about Okolo which you will find in a later section of this guide.

BACKGROUND INFORMATION

UNDERLYING CONCEPTS

Here are a few of the concepts related to this topic. Some of these ideas may already be familiar to your students; others may be quite unfamiliar, but we hope most second and third graders will understand many of them by the end of the unit.

- 1 Climate and environment are different in different parts of the world.
- 2 There are reasons why people live in different ways in different parts of the world.
- 3 People all over the world need houses or shelters of some kind.
- 4 People use materials from their environment to take care of such common basic needs as shelter, food, and clothing.
- 5 Many different kinds of materials make effective houses in various climates.
- 6 The main factors that influence the form of a house are:

location - climate

where you live and the weather around you - defines the extreme temperatures, the wind, rain, or storms for which the house must provide protection.

materials

what you have on hand - influences the form, appearance, and effectiveness of the house.

occupation

how you get food and other essentials - determines whether the house is movable or temporary (hunting or herding) or more permanent (farming).

technology

kinds of tools you have - limits the way in which materials can be used.

trade

how much you exchange goods and ideas with other people - determines the value placed on tradition instead of change.

ESSENTIAL INFORMATION

Most of our information about Eskimos is true only of those tribes in northern Canada whose particular location and cultural heritage have brought about a primarily hunting, nomadic life. Other kinds of Eskimos have different houses and ways of life. All Eskimos are in the process of change and all are experiencing increasing contact with other tribes and cultures.

The same is true of Nigerians today. One must avoid the generalization that all African houses are like our model. There is a tremendous variety of house types and building materials all over Africa, even within the country of Nigeria itself. Increasing numbers of Nigerians are attending schools and learning the culture and technology of other countries. This will inevitably lead to changes in their own traditional practices.

But despite these changes, the style of house devised by each group will probably remain in use for practical reasons. The Arctic Training School of the U. S. Army Air Force, for instance, has found that igloos are the best and quickest way to get protection from the sub-zero cold. Similarly, many people traveling to tropical countries have found that high, thatched roof houses are cooler and more comfortable than other kinds.

BACKGROUND FACTS

	<u>Eskimo Igloo</u>	<u>Nigerian House</u>
Location	Central arctic regions of Canada just west of Baffin Island	West Africa along the Niger River
Climate and environment	<p>Snow and ice in winter with few daylight hours.</p> <p>Very short fall and spring with light or melting snow</p> <p>Short summer: 40° to 60°</p> <p>Tundra covered with grasses and flowers. Rivers flow, and mosquitoes swarm</p>	<p>Hot sun and much rain; some nights are cool</p> <p>Thick forest growth</p> <p>Two distinct seasons: Rainy season: May-October Dry season: November-April</p> <p>Northern part of country is generally drier, with more intense sun</p>
Living groups	<p>Winter: Several families together; more independent at other times of year. Permanent settlements increasing in number and size</p>	<p>Many towns and small villages and a few large cities, e.g. Lagos, Ibadan, Kano, Port Harcourt</p>
Raw materials available for houses	<p>Snow and ice. Animal skins and bones. Some driftwood from Canada and Greenland. Seal oil and mosses</p>	<p>Many kinds of trees, mud, grasses, palm leaves, bamboo. vines for twine</p>
House type and size	<p>Temporary structures because people are nomadic hunters</p> <p>Generally about 10' across and 7'-9' from floor to roof dome</p> <p>Igloo is small to conserve heat, and living is close together</p>	<p>Semi-permanent houses (people are chiefly farmers) which are rebuilt often because of rain damage</p> <p>Average house might be 12' square, depending on family size and wealth.</p> <p>House can be small since much living is outdoors</p>

BACKGROUND FACTS

2

	<u>Eskimo Igloo</u>	<u>Nigerian House</u>
Walls and roofs	<p>Winter igloo made of snow blocks</p> <p>Spring and fall karmak made with snow or ice block walls and skin tent roof supported by center pole</p> <p>Summer tent made of skins (seal, caribou)</p>	<p>Wall and roof frame made of bamboo or other wood, either tied with vines or rope, or nailed</p> <p>Mud is daubed onto frame, and either left rough or smoothed over</p> <p>Roof is thatched with bunches of grass or palm fronds</p>
Floors	Floor is packed snow except in summer when ground is partly covered with skins	Floor is packed earth, swept smooth
Furniture	Only built-in snow ledge for sleeping platform, and wooder drying rack stuck into snow walls or elsewhere over fire	Stools, chairs, beds made chiefly of wood, and some built-in ledges or a sleeping platform made of mud
Sleeping	Family sleeps together on snow platform, sometimes covered with layer of twigs and branches, always with caribou furs	Parents and possibly the baby sleep on raised mud platform covered with woven grass mats and cloth spreads. Children on woven mats on floor
Food	Hunting for caribou and seal. Fishing for salmon, trout, etc. Some birds' eggs and berries found in summer. Flour, sugar, tea, coffee from trading post.	Farming: yams, corn, peppers, peanuts, casava roots, etc. Fruits, vegetables, palm oil are gathered. Fishing, meat from goats, chickens
Food storage	Frozen or dried	Yams and casava are kept in frame barns. Fish dried. What cannot be eaten or stored is immediately traded for other items

BACKGROUND FACTS

3

	<u>Eskimo Igloo</u>	<u>Nigerian House</u>
Fires	Made on a rock with bow drills, both inside and outdoors, or with matches	Generally made with matches, indoors or outdoors
Clothing	Traditionally, suits of caribou skins and seal-skin boots. Recently, cotton and woolen clothes are often substituted	Various light cloths, generally cotton, both locally made and imported. Styles are traditional or western
Animals	Seal, caribou, polar bear, husky dogs, fish, birds, rabbits, and lemmings, etc.	Domestic: chickens, goats, sheep, cattle. Wild: monkeys, snakes, rodents, a few leopards, elephants, hippopotami, gazelles
Transportation	Kayak (small boat), Umiak (large boat) and sleds. Increasing airplane contact with Canadian cities	Boats. Increasingly some trains, cars, trucks and bicycles.
Other tools	Harpoons, fish spear, ulo (woman's knife), snow knife, needles, ice scoop, shovel, leather thong	Machete knife, spears, hoes, and fishing equipment, e.g. poles and nets
Crafts	Soapstone carving Parka decoration Bone carving	Wood carving Pottery Weaving and dyeing of cloth Basket-making
Trade	Items like tea, flour, sugar and tobacco are bought and traded.	Small open markets in nearly every village; larger markets in larger towns.

ESKIMO FILM NOTES

Iglloo Building

We find two families of the Netsilik Eskimo tribe stopped for a rest on the trail. Presently they begin to move again, traveling on sleds made of wood or of frozen caribou skins. Each family has two sled dogs.

After some time the families stop to set up their camp. They build igloos. One family constructs theirs a little faster than the other. First the snow is probed with a harpoon shaft to see that it is workable, and then the Eskimo man marks out a ring of the correct size in the snow. The soft snow within the ring is shovelled out.

With the circled area clear, he cuts snow blocks with a snow knife, and begins slanting the blocks up in a spiral which he continues into the second and later tiers of blocks. Note that each block is shaved and tilted just right as it is set in place.

As the man works inside, the woman breaks up the loose snow near the house and throws it against the growing wall to provide further insulation and to fill in the spaces between blocks.

As the man nears the top of his igloo, he begins cutting blocks from the entry-way. At the second igloo, the doorway is cut from the inside. Back at the first igloo, the last block is dropped in place as the key-stone of the snow-arched house.

These two igloos, built in late winter, are taller and more bee-hive shaped than in mid-winter because the sun is expected to begin melting the top of the dome soon. Then the tops will be cut away, replaced with skins, and converted into a karmak (the spring and fall house).

Snow construction of this type is only possible with wind-packed snow. Since it takes only a few hours to build this kind of igloo, the Eskimo who travels across the arctic regions searching for seal or fish to feed his family can always make himself a comfortable shelter.

ESKIMO FILM NOTES

Building A Karmak

Our Netsilik Eskimo family has taken off independently from the other families in search of fresh spring fish. We will see them make a karmak, a spring igloo, to live in for four or five days before returning to the others.

The film opens with views of the Arctic uplands, from which the May sun has begun to melt the snow. A snowy owl preens his feathers. A snow bunting sings. A lemming has emerged and begins to forage in the moss and lichens for food. When he is observed by a jaeger, he is frightened, and burrows into the snow in the nick of time.

The family appears, with a polar bear skin dragged as a sled by the two dogs. When they stop, the father kicks aside the loose snow and sets about building the snow-walled tent, or karmak, used in the fall and spring. While he is cutting and fitting the snow blocks, his wife and son go off to look for stones to support the lamp and cooking pot.

As in the building of the igloo, the karmak snow blocks are cut from the floor area near the door; the walls spiral up until an adequate height is achieved.

Then the tent roof is unfolded and spread over the top. It is made of caribou and seal skins sewn together. The wife works inside the house setting up the wood pole; the father ties the tent to the pole with sealskin thong and then anchors the thong outside with blocks of snow. A large polar bear skin is the last part of the roof to be put up.

The boy helps his father by carrying things into the karmak where the mother is arranging the caribou sleeping skins on the sleeping platform and setting up the cooking area. The father hits the nearly frozen furs to knock off all the snow before they go into the house since wet or damp things quickly turn to ice.

PICTURE POOL NOTES

Eskimos

These notes are for reference only. They are intended to clarify details in the pictures, but more often you will be able to interpret the pictures, with your students, simply by looking at them carefully.

- 2 Igloo building. Note blocks of snow cut and stacked in background, base banked with extra snow to keep house warmer.
- 3 Note spiral arrangement of snow blocks. Since some blocks are cut from inside the igloo, the floor that the man stands on is lower than the outside snow level. This snow knife, used to cut the blocks and smooth them, is a modern steel one from the trading post.
- 4 An abandoned igloo is being made into a tunnel to add to a new igloo. Note window made of thick block of ice.
- 5 Woman is cutting a hole for the window in the igloo roof on which she is standing. At top right is vent chimney made of snow.
- 6 Note tools stuck into snow - harpoons, fishing spears, shovel.
- 7 An unusually large doorway into an old igloo which has now become the storage area and tunnel for the newer igloo. Sometimes vent chimneys are made of stovepipes instead of snow. Note snow getting dirty.
- 8 Note that snow is not always very deep.
- 9 Since it takes only a few hours to build a new snow house, old ones like this are abandoned when they get too dirty or begin to melt in the spring.
- 10 A snowstand to keep the sled from being buried under snowdrifts.
- 12 The new igloo before cracks have been filled in and before ice window has been put in. Some of the blueness is due to the type of film used in the camera.

PICTURE POOL NOTES | 2

- 13 The drying rack over the cooking area.
Note ice window.
- 14 Note caribou skins covering sleeping platform
(made of snow) and iced-over walls.
- 15 Note how warm the igloo can be inside.
- 17 Much learning takes place at home.
- 21 Drying racks can hold meat, skins, sinew, etc.
- 22 Eating. Note that the man on left wears a
parka with the fur outside, probably because
he has another parka underneath with fur
turned inside, like figure on right of picture.
- 23 In the karmak (see #27), probably with part
of skin roof thrown back to admit light.
The woman is poking at the wick burning
inside the hollowed-out rock on the snow
table.
- 24 This ceremonial igloo has been made larger
than most igloos by adding smaller, connecting
igloos around the walls. The central part
is about 20 feet across, while the average
family igloo is about 10 feet across.
- 26 Note cooking area in background.
- 27 In spring and fall the Eskimos build karmaks,
houses with snow block walls and caribou and
seal skin roofs supported by a center pole.
The sun is now hot enough to melt the tops
of the snow igloos.
- 28 Family carrying skins over to finish karmak.
(Tan color of snow due to error in photographic
process.)
- 30 Skins, now supported by center wood pole, are
being draped over edges of walls.
- 31 Skin roof anchored around walls so no cold
air can get inside.
- 32 Snow has been piled on edges of roof skins
to hold them down. The sleeping furs are
being taken into the house.

PICTURE POOL NOTES

Nigerians

- 1 Nigeria - note palm trees.
- 3 House made of mud daubed on wood or bamboo frame with palm leaf thatched roof.
- 4 Note bamboo and palm leaf fence.
- 6 Reed mat in foreground used for drying fish.
- 7 Carrying poles for building in this new settlement.
- 10 Stool and chair are hand-made.
- 11 Sitting in a covered porchway with cooking and food-grinding equipment.
- 13 Grass thatched roof (rather than palm leaves).
- 16 Yams are stored in an outdoor "barn." Dried this way, they keep for a long time.
- 19 Woman strains breadfruit in a basket.
- 22 Woman taps on a pot which has been made into a drum.
- 28 Orange gourds are lying around tree. Palm fronds probably will be used for roof covering.
- 29 Grinding corn. Most household work is done outside.
- 30 Note house washed out by rain.
- 31 Raw materials of housebuilding.
- 32 Grasses are woven for fences, sleeping mats, etc.
- 34 Cooking casava over the fire.
- 35 Community meeting place - note handmade chair and machete, the house building tool.

STORY OF OKOLO

READ-ALoud STORY

Excerpt from OKOLO, BOY OF NIGERIA

by Peter Buckley

(Okolo is a boy who grew up in a village in Nigeria. He wanted very much to go to school. When he was old enough, he hoped the men of his village would give money to pay for his schooling in a nearby town. If they did, he would be the first boy from his village ever to go to school.)

The leaders of the village wanted to be sure Okolo was worthy of their trust and their money. One thin old man asked Okolo to answer questions.)

"If a man comes to your house and is thirsty, what do you do?"

"Give him water," Okolo answered.

"And if he is hungry?"

"Give him food," he answered...

The voice was more gentle than before, and the thin old man seemed to be asking Okolo a favor when he said, "I have opposed your going from the beginning, Okolo. I almost persuaded the others to decide against you. Now you have won. I shall not live to see you grow into a man. I shall never know if you fail us. Before you leave, though, tell me what a man in our village does when he needs a house. Tell me this."

Okolo knew. Only last week his father had helped a neighbor to build.

"Ogbuagu came to my father one night and said, 'The walls of my house have fallen!' My father answered, 'That is too bad. I am sorry.' In the morning, my father went to help Ogbuagu start his new house."

Okolo described how they worked together for three days, bent over, digging up the earth, wetting it, piling it into long straight mounds, stamping it down with their feet, rounding it with their fists, until the earth rose up in the shape of smooth, hard walls. On the fourth day, when the walls were built, they made a bamboo pole framework for the roof. On the fifth day they thatched the roof with palm leaves.

"And on the last day," Okolo said, "when the house was finished, Ogbuagu killed his fat goat. He and my father had a feast together. They drank a lot of palm wine, and told stories to make each other laugh."

The thin old man smiled and asked Okolo what Ogbuagu would do when [Okolo's father] needed a new house.

"He will come to help my father," he answered.

"You are right, Okolo. We work for one another because it is the only way to live. I am glad you are going to school. If you always remember the story you have told us, our village will grow."

Standing up slowly, the thin old man spoke to the chief.

"I will sell a third of my oranges to help pay for Okolo's school."

Before he went to sleep that night, Okolo told his mother how all the men had offered to help him on his way. [The father] listened to his son. He was proud of the way he had spoken at the meeting, and he said to [the mother], "Okolo is right. Everyone promised to give, even those who have very little."

Excerpt from

Okolo, Boy of Nigeria, by Peter Buckley,
(Methuen and Co. Ltd., London, 1964), pp. 22-23.

REFERENCES

Other materials which your class might enjoy in connection with this Box are:

BOOKS for children

Okolo, Boy of Nigeria, by Peter Buckley, Young World Series, Methuen and Col ltd., 1964

Let's Find Out About Houses, by Martha and Charles Shapp, Franklin Watts, Inc., 1962

Houses, by Irving and Ruth Adler, Reason Why Books, Jorm Day Co., 1964

The Story Book of Houses, by Maud and Miska Petersham, John C. Winston Co., 1933, Great Britain

Thirty One Brothers and Sisters, by Reba Paeff Mirsky Wilcoa and Follet Co., Chicago, 1952

FILMS

How to Build an Igloo (11 min., color) National Film Board of Canada.

Homes Around the World (11 min., color) Coronet.

A World Full of Homes (12 min., color) McGraw Hill.

Shelter (11 min., color) Encyclopedia Britannica

Buildings of Mud (11 min., color) McGraw Hill.

FILMSTRIPS which relate to houses in different ways are put out by the Society for Visual Education, Encyclopedia Britannica Films, and McGraw Hill.

ACKNOWLEDGEMENTS

The following people were particularly helpful in developing ideas for the Box:

Barbara Ayres, anthropologist,
Harvard University
Mrs. Sarah Corson, second grade teacher,
Davis School, West Newton
Mrs. Priscilla Cowell, second and third
grade teacher, Lesley-Ellis School,
Cambridge
Davis Pratt, Curator of Photography,
Harvard University
Michael Sand, designer, Cambridge
William Schroeder, architectural designer,
Cambridge

We must particularly thank Quentin Brown, director of Social Studies Films of Educational Services Incorporated, Newton, for special efforts to make the two films about Netsilik Eskimos suitable for our needs and also for making available to us the many still photographs of these people.

Those educators who offered advice and criticism are:

Dr. Maurice Belanger, Harvard School of
Education
Richard Cowell, CAS student of curriculum
development, Harvard School of Education
John Holt, author and teacher, The Commonwealth School, Boston
Dr. Joseph Grannis, Harvard School of
Education
Herbert Vise, architect and teacher,
Harvard Graduate School of Design

Teachers who tried out the Box or its parts in their classrooms, or gave us many helpful suggestions about this guide include:

Mrs. Priscilla Dunn, second grade, Agassiz
School, Cambridge
Mrs. Barbara Holstein, second grade,
Willard School, Concord
Mrs. Ann Kleinman, third grade, Tobin
School, Boston

ACKNOWLEDGEMENTS | 2

Mrs. Margaret Meyer, second grade,
The Friends' School, Cambridge
Miss Judy Salamoff, The Albert Palmer
School, Boston

Those people who designed or made items
in the Box are: Joseph Spacer of the
Museum of Science, Boston; Duncan Smith,
Robert Walker, Sandra Mosher, Jane Yaffee,
and Edith Schroeder of the Children's
Museum. We would like to give special
thanks to Mrs. S. Flagg of Flagg Flexible
Dolls, Inc. who adapted dolls to our needs.

The people who were especially helpful in
locating or providing photographs and
background information for our Picture
Pools include:

Jean Briggs, Ph.D. candidate in anthropology,
Harvard University (Eskimo pictures 1,
3-5, 7-9, 11, 12, 20, 21, 33, 34 and
modern karmak pictures in Survey Pool)
Carl Heider, Peabody Museum, Harvard
University (New Guinea pictures)
Asmarom Legesse, Ph.D. candidate in anthro-
pology, Harvard University (Ethiopian
pictures)
Davis Pratt (Lapp and Iranian Yurt pictures)
Eleanor Putman (Nigerian pictures 1-4, 6,
8-35 and modern Nigerian house)
Educational Services, Inc. (Eskimo Picture
Pool 2, 6, 10, 13-19, 22-32, 35-38)

Other photo credits: Elizabeth Thompson (East
African pictures), Genevieve Keating (Ice-
landic and Irish pictures), Mrs. Aylette
Jenness (Modern Alaskan Eskimo pictures),
William Schroeder (Modern American pictures),
Smithsonian Office of Anthropology, Bureau
of American Ethnology Collection (Comanche
and Zuni pictures), Bureau of Indian
Affairs, Department of the Interior (New
Mexican adobe and Navaho pictures), and
Wide World Photos (Nigerian 5 and 7).

*Cynthia Cole
Edith Schroeder*

ABOUT THE MATCH BOX PROJECT

In June, 1964, under a contract with the United States Office of Education, we started the MATCH Box Project at the Children's Museum. The term "MATCH" stands for Materials and Activities for Teachers and Children. A MATCH Box contains materials, equipment, supplies and activities that work together to foster the teaching/learning of specific subjects at the elementary school level. The Boxes contain a high proportion of real objects and require little or no auxiliary equipment or supplies from the school. In every Box there is a Teacher's Guide which serves to organize and activate the three-way encounter between the materials, the teacher and the children.

MATCH Boxes are designed for the relatively intensive treatment of a subject over two weeks, and can be circulated among teachers through material resource centers, libraries, museums, AV departments.

As the Boxes are being developed, materials and activities are tried out in the schools. Prototypes are then assembled, evaluated in local classrooms, and revised prior to distribution.

The first five MATCH Boxes, completed in September, 1965, were: GROUPING BIRDS (Grades K-2); THE CITY (1-3); THE ALGONQUINS (3,4); SEEDS (3,4); and A HOUSE OF ANCIENT GREECE (5,6).

The Box described in this guide is one of a second "generation" of Boxes completed in September, 1966: HOUSES (Grades 1-3); ANIMAL CAMOUFLAGE (2,3); NETSILIK ESKIMOS (3,4); MUSICAL SOUNDS AND SHAPES (3,4); ROCKS (5,6); JAPANESE FAMILY 1966 (5,6); and MEDIEVAL PEOPLE (5,6).

A third generation of Boxes will be finished in September, 1967.

Though the Boxes are our most tangible product, we use them and the developmental process itself as a method for studying the role that real materials play in teaching and learning, and as a way of seeking principles by which media may be combined to create effective educational systems.

This Box and this guide are prototypes and will be revised. We welcome your comments and criticisms. Please write to the MATCH Box Project, The Children's Museum, 60 Burroughs Street, Boston, Massachusetts 02130.

Fred H. Kresse
Project Director